

CLAIMS

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(1) A magnifying observation apparatus for reproducing an image of an object to be observed which has been picked up by an image pick-up apparatus onto a monitor display and observing it, said image pick-up apparatus having incorporated therein at least an imaging device, a control circuit unit for the <sup>controlling</sup> imaging device, an optical system for focusing the image of the object to be observed on the imaging device, and a light-source lamp for lighting the object to be observed.

(2) A magnifying observation apparatus according to Claim 1, wherein said light-source lamp is formed as a lamp unit comprising a plurality of lamps arranged in a predetermined state on a board in such a manner that the whole of the lamp unit can be mounted to and removed from said image pick-up apparatus.

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(3) A magnifying observation apparatus according to Claim 1 ~~or Claim 2~~, wherein a front end portion of said image pick-up apparatus is bent sideways, and said imaging device is incorporated in the image pick-up apparatus in such a manner that a light receiving surface of the imaging device is orthogonal to an optical axis of an image light which is incident from the thus-bent front end portion of the image pick-up apparatus.

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(4) A magnifying observation apparatus according to ~~any of Claims 1 to 3~~ <sup>1</sup>, wherein an objective lens of said optical system and said imaging device slide in interlock with each other while satisfying the relation of  $1/a + 1/b = 1/f$  (a: distance between the object to be observed and the objective lens, b: distance between the objective lens and the imaging device, f: focal length of the objective lens).

(5) A magnifying observation apparatus according to Claim 4, wherein said objective lens is held in a fixed state by an optical system holding cylinder having a roller projection formed on the periphery thereof, said imaging device is held in a fixed state by an imaging device holding cylinder having a roller projection formed on the periphery thereof, both said holding cylinders being held slidably by an intermediate cylinder having a rectilinear guide slot formed on the periphery thereof, said intermediate cylinder being held relatively rotatably by a cam cylinder having a cam slot for the optical system and a cam slot for the imaging device, said cam slots being formed in the periphery of the intermediate cylinder, and said objective <sup>lens</sup> ~~means~~ and said imaging device are allowed to slide in interlock with each other while forming a predetermined distance relation in response to rotation of said cam cylinder through the roller projections which are engaged with the cam slots of the cam cylinder through the guide slot of said intermediate cylinder.

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*Add B17*      *Add E37*

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